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6 BEFORE THE HEARING BOARD  
7 OF THE  
8 BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
9 STATE OF CALIFORNIA  
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11 In the Matter of the Application of: ) **Docket No. 3417**  
12 VALERO REFINING COMPANY - )  
13 CALIFORNIA ) **ORDER GRANTING**  
14 ) **VARIANCE**  
15 For a Variance from Regulation 8, Rule 5,  
16 Section 304.4 )  
\_\_\_\_\_ )

17 The above-entitled matter is an application for variance from the provisions of Bay Area  
18 Air Quality Management District ("District") Regulation 8, Rule 5, Section 304.4 for Tank 1758  
19 at the petroleum refinery located at 3400 East Second Street, Benicia, California 94510, owned  
20 and operated by Valero Refining Company-California (Applicant). Applicant filed an  
21 application for Emergency Variance on January 16, 2003. The Emergency Variance relief was  
22 denied on January 23, 2003, with permission granted for a written application to be submitted by  
23 January 27, 2003. Applicant submitted the written application on that date, and it was deemed  
24 filed as of January 16, 2003.

25 Kenneth Manaster of Pillsbury Winthrop LLP, Counsel, appeared for Applicant.

26 Toby Sherwood, Assistant District Counsel, appeared for the Air Pollution Control  
27 Officer ("APCO").

28 The Clerk of the Hearing Board provided notice of the hearing on the application in

1 accordance with the requirements of the Health and Safety Code. The Hearing Board heard the  
2 request for variance on March 27, 2003.

3 The Hearing Board provided the public an opportunity to testify at the hearing as required  
4 by the Health and Safety Code. No members of the public testified. The Hearing Board  
5 received evidence from both parties. The APCO did not oppose the granting of the variance. At  
6 the hearing, Applicant amended the application to change the time period of the requested  
7 variance to January 16, 2003, through January 19, 2003.

8 The Hearing Board declared the evidentiary portion of the hearing closed after evidence  
9 and argument and after deliberation decided the matter.

### 10 **BACKGROUND**

11 Applicant operates a 75,000 barrel, external floating roof tank, Tank 1758, for the  
12 storage, blending, and shipping of gasoline. The roof of this tank is composed of overlapping  
13 steel plates. This tank is subject to District Regulation 8, Rule 5, Section 304.4, which went into  
14 effect on November 27, 2002.

15 On January 15, 2003, during an inspection of Tank 1758 by an outside contractor, an oil  
16 sheen was noticed on a puddle of water on the roof of this tank. Because this condition appeared  
17 to be in violation of Regulation 8, Rule 5, Section 304.4, Applicant filed a breakdown report with  
18 the District staff on that day. Applicant also ascertained that the source of the oil sheen was a  
19 leak resulting from a very slight crack, approximately ten inches in length, in the weld on a lap  
20 joint in the roof's center deck.

21 On January 16, 2003, Applicant submitted this application for variance relief. Applicant  
22 also began pumping out the contents of the tank on that day. On January 19, 2003, that process  
23 was completed, the tank was empty, and the roof was landed. Degassing of the tank was then  
24 completed and the crack repaired. The portion of the weld containing the crack was cut out for  
25 failure mode analysis. Over that area, a metal patch was placed and welded around its perimeter.  
26 Later in January 2003, all of the welds on the roof of Tank 1758 were subjected to magnetic  
27 particle testing, an inspection technology capable of revealing both surface and subsurface weld  
28 defects. This testing showed no cracks or leakage.

1 Applicant is not considered a small business as described by California Health and Safety  
2 Code Section 42352.5(b)(2), and the refinery emits more than ten tons per year of air  
3 contaminants.

### 4 5 **DISCUSSION**

6 Tank 1758's noncompliance with Regulation 8, Rule 5, 304.4 resulted from conditions  
7 beyond Applicant's reasonable control. The weld leak discovered on January 15, 2003, was not  
8 anticipated. Tank 1758 is one of 27 external floating roof tanks at the refinery, all of which are  
9 about 34 years old and within their expected useful life. No other tank has experienced a weld  
10 leak.

11 Laboratory analysis of the crack indicated that metal fatigue caused the crack to grow  
12 from the inside to the outside of the weld, but the initial cause of the crack has not been  
13 determined. The leak was discovered as part of Applicant's maintenance program.

14 As a result of its adherence to an industry standard regarding inspection of floating roof  
15 tanks, Applicant discovered a leak caused by a weld crack in another part of this roof in June  
16 2001. This same crack was repaired twice thereafter, in May and August 2002. The last repair  
17 in August 2002 included placement of a metal patch over the affected area. A visual inspection  
18 of the roof in August 2002 identified 16 weld locations of questionable appearance, and those  
19 sites were subjected to magnetic particle testing. The testing showed that there was one crack,  
20 with no leakage. That site was repaired and covered with a metal patch.

21 When the separate leak was discovered in January 2003, Applicant determined that it  
22 could not be repaired without removing the tank contents. This was done as quickly as possible,  
23 given Applicant's storage capacity.

24 Excess volatile organic compound emissions were determined by the Hearing Board to be  
25 50 pounds per day during the requested variance period. Applicant described the amount of  
26 excess emissions as "negligible" but did not contest the determination of the Hearing Board.

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1 **SPECIFIC FINDINGS**

2 The Hearing Board finds:

3 1. Because of the weld leak, Applicant was in violation of Regulation 8, Rule 5,  
4 Section 304.4, which states, "The floating roof must rest on the surface of the liquid tank  
5 contents, must be properly installed and maintained, and must be in good operating condition.  
6 There shall be no liquid tank contents on top of either the primary or secondary seal, or on top of  
7 the floating roof (this requirement does not apply to liquid which clings to the inside tank walls  
8 as the tank is drained, or to liquid which drips from the tank walls onto the seals."

9 2. The violations were due to conditions beyond the reasonable control of Applicant,  
10 whose employees were diligent in (a) inspecting and maintaining the tank before the leak  
11 occurred, (b) responding to the leak, (c) insuring that excess emissions during the requested  
12 variance period were limited to those from the leak, and (d) repairing the leak. The Applicant  
13 had no readily available storage tank for the contents of the leaking tank. Introduction of the  
14 contents into the pipeline would have disrupted the business of the Applicant and other pipeline  
15 users, thus, imposing an unreasonable burden on the Applicant and others. Therefore, requiring  
16 compliance by immediate emptying and degassing of the tank would have resulted in an  
17 unreasonable taking of property.

18 3. Excess emissions were limited to those from the leak, which could not be repaired  
19 while the gasoline remained in the tank; therefore, requiring compliance would not have resulted  
20 in a reduction in the emission of air contaminants.

21 4. Applicant considered curtailing its operations in lieu of obtaining a variance, but  
22 no curtailment beyond the measures instituted by Applicant was feasible.

23 5. During the variance period, Applicant reduced excess emissions to the maximum  
24 extent feasible by emptying the tank as quickly as was reasonable.

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1           6.       The District staff did not request that Applicant monitor or otherwise quantify  
2 emission levels during the variance period.

3           THEREFORE, THE HEARING BOARD ORDERS:

4           A variance is granted for the period January 16, 2003, through January 19, 2003, from  
5 Regulation 8, Rule 5, Section 304.4 for Tank 1758.

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7           Moved by:           Allan R. Saxe, Esq.

8           Seconded by:       Terry A. Trumbull, Esq.

9           AYES:           Christian Colline, P.E., Julio A. Magalhães, Ph.D.,  
10                           Allan R. Saxe, Esq., Terry A. Trumbull, Esq., and  
                          Thomas M. Dailey, M.D.

11          NOES:           None

12          Non-participating: None

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          Thomas M. Dailey, M.D., Chair

  April \_\_\_\_\_, 2003